

By Louis Mackall.

U.S.B.

DARWINISM

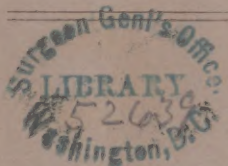
REPROVED AND REFUTED.

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The following paragraphs in the newspapers served to call the attention of the writer to the subject, and suggested this effort to expose the fallacy of Darwinism:

"THE SAVANS AT PORTLAND.—Dr. Newbury arose and asked that the Darwinian theory be not harshly condemned. It is one of the greatest generalizations of the age, and has done much for science."

"DARWINISM IN THE EVANGELICAL CONFERENCE.—To an interrogatory submitted by Mr. Dawson, "Is there a necessary antagonism between the Darwinian theory and the Christian Church?" he replied that it was rather a hard question, and that it would require a well-prepared treatise to respond satisfactorily."



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DARWINISM REPROVED AND REFUTED.

Darwin's theory of the descent of man, the leading proposition of which is, that man is descended immediately from some species of monkey, and remotely from one of the lowest orders in the animal series—from an Ascidian larva—is so repugnant to every feeling of humanity, and so revolting to the common-sense of the human mind, that on presentation to any unsophisticated intellect, it is at once rejected and spurned with indignation. This proposition, so universally deemed insulting to humanity, forces upon us the conviction, that it can be entertained only by a mind whose common-sense has first been outraged and silenced by the deadening influence of a cunning sophistry : a sophistry that, in this instance, has had a more general bearing on the human intellect from the fact, that it has not been detected and exposed by scientists. The earnestness and seeming candor of the writer, in pressing and urging his peculiar views, have also exerted an influence over the minds of his readers, that has had its effect in the adoption of this theory. A scientific proposition that, to every unsophisticated mind appears manifestly absurd, may be set down as being fallacious.

The true bearing and real tendency of Darwin's argument has not been suspected by scientists nor seen by himself. This tendency unquestionably is: to demonstrate, by the argument which logicians call "a *reductio ad absurdum*," the fallacy of the whole system of European science. A system of science, on the principles of which a valid argument could be made in support of a proposition so utterly false as that of Darwin, stated above, must be radically and fundamentally wrong. It would be no difficult task to point out plainly many other propositions that have been admitted as established principles of European science that are equally false as that maintained by Darwin; we will only particularize here those that relate to the occult properties of matter—Attraction, Repulsion, Affinity—and those relating to universal gravitation, to the potentials in nature, to the nature of physical force, to the correlation and conservation of the physical forces, to atmospheric pressure, to inertia, to muscular action, to propulsion or peristaltic action, and to the forces acting in the steam-engine and in the electro-magnetic telegraph. There are many more gross and palpable errors in European science—too numerous to stop here to enumerate.

Any one who has taken a correct view of nature in the light of true science at once sees that there are no grounds there for Darwin's principal positions, and becomes convinced that his main proposition, as stated above, is futile in the extreme, is unreliable and unfounded.

Had Darwin contended that the monkey is descended from man, and that its present degraded form was the punishment inflicted for a neglect or non-observance of

an instinct of man's nature, he might have constructed a more plausible argument than he has done. He might have pointed to the condition of the Fuegian savage, whose brutal appearance seems to have reconciled his mind to the notion of claiming the monkey as his progenitor, as one of the stages of this degradation to which he had been brought by a perversion of his instincts, and to some extent by his inherited habits of reckless indulgence of passion, and also in some measure by the environment of savage life. But this proposition on reflection would have appeared false; for it must be admitted, that the vast scheme of creation was planned in the will of an omniscient and omnipotent Creator, and that it is not allowed to His creatures to mar or to interfere materially with the details of "the work which God worketh from the beginning." He has endowed no creature with the power nor with the intelligence that would be required for such an undertaking. The world has all along been as God has appointed, and the course of nature will continue as He may direct, notwithstanding the short-sighted theories of would-be philosophers. Let the ridiculous doctrine of Evolution, which is founded on *materialism*,—that is another term for *atheism*, and which Darwin embraces and strenuously endeavors to bolster up in his false theory,—let this doctrine be compared with the Mosaic account of the creation, and then let the student of nature determine if he will choose for his progenitors Darwin's pair of ring-tailed monkeys, or

and "Adam, the comeliest man of men since born his sons,"

"The fairest of her daughters, Eve."

Darwin has taken a wide range of natural phenomena in arraying the facts in support of his argument. An equally extensive view of nature may be allowed in its refutation.

The following sketch of the economy of nature is taken from a new and unpublished edition of "American Science: "

"In the investigation of nature, which is the proper province of the scientist, the most effectual method of studying it, in order to render this subject clearly intelligible to the human mind, is to regard the economy of nature as a form of government, having God for its founder, its Supreme Ruler, and Law-giver."

Under this government there are two classes of subjects: bodies or forms of matter, and constitutions or characters of mind, or simply matter and mind. For each class of subjects there is a separate class or code of the Laws of Nature, and these two codes may be designated respectively as *the Physical Laws* and *the Instincts*. To regulate or govern the motions and changes of form of material bodies, the code of the Physical Laws were ordained; and to direct the actions or conduct of minds, or of living beings whose personal identity is in their minds, the code of the Instincts was enacted.

The line of demarkation between the two codes is well defined in nature by means of the separate provisions for executing or for enforcing the operation of these two classes of laws. The Physical Laws have associated with them force—physical force or power—whereby they are executed; while for the execution of the instincts, or to secure obedience to these laws, the system of rewards and punishments is introduced.

The following may be considered a correct list or catalogue of

THE PHYSICAL LAWS.

1. Physical law : (L. 1.) The Law of Interchange of Life :* *Let there be an interchange of life with other bodies or material forms with which they are in relation, among all bodies of matter throughout the universe.*

2. Physical law : (L. 2.) The Law of Gravitation : *Let all ponderable bodies about the earth's surface tend to move towards the centre of the earth.*

*The term life here has reference to an ether of extreme tenuity. There are two modes or kinds of this life : the one, constantly passing off from all forms of inorganic or inanimate matter, is diffused among other similar forms, and becomes a part of the elements or constituents of surrounding bodies. This form we propose to call material or *physical life*. The other form, constituting the nerve-fluid, or its analogue, or the specific life of beings, and which we propose to designate as the spiritual or *metaphysical life*, is most usually passing or determined from beings, and is applied to the several purposes : 1st, of combining with the physical life of bodies to form the ideas of such bodies that are by this means brought into relation with, and are capable of making impressions on, the mind ; 2d, of influencing the motions of the muscles, as heretofore explained ; and, 3d, of nutrition or the formation of vital products.

The analogy of the pith and medullary processes of vegetable growths to the nerve-centres and nerves of animals is so strikingly manifest, that I do not see how it can possibly be overlooked by the scientific mind. The woody fibre also appears plainly to my mind to be the analogue of the muscular fibre.

The notorious fact, that all beings grow tired or are exhausted of life on expending it as above, and are refreshed by sleep, or have their supply of life replenished by stopping this expenditure, serves to confirm the correctness of the above physiological views.

3. Physical law : (L. 3.) The Law of Diffusion : *Let all imponderable bodies or forms of matter be diffused among surrounding bodies, to be absorbed, merged into, and to become constituents of such bodies.*

4. Physical law : (L. 4.) The Law of Suction : *Let adjacent bodies, according to their mobility or capability of motion, press towards a vacuum or towards a rarefied space, to restore an equilibrium.*

5. Physical law : (L. 5.) The Law of the Life Current : *Let the life of any form of matter, which is essential to the identity of such form, pass off into any current of matter that moves near to it.*

6. Physical law : (L. 6.) The Law of the Water-level : *Let water or other liquids tend to move towards the spherical outline or contour of the earth's surface.*

7. Physical law : (L. 7.) The Law of Elasticity : *Let the molecules of elastic bodies tend to preserve their natural relative position.*

8. Physical law : (L. 8.) The Law of Crystallization : *Let the molecules of crystalline bodies, when combining, be arranged in regular specific forms, or crystals.*

9. Physical law : (L. 9.) The Law of Chemical Combination : *Let the constituent atoms of certain material forms be combined in definite proportions.*

10. Physical law : (L. 10.) The Law of Cohesion : *Let material bodies or their molecules unite to form distinct masses or larger bodies of matter.*

11. Physical law : (L. 11.) The Law of Vital Combination : *Let the specific life of animants unite or combine with other materials to form the fluids and tissues of living bodies.*

12. Physical law : (L. 12.) The Law of Muscular Action : *Let the living muscular fibre, when innervated by the accession of nerve-fluid through its motory nerves, be ACTIVELY ELONGATED AND ERECTED ; and when enervated, by having this fluid withdrawn from the same nerves by means of an action in its corresponding nerve-centre, let the fibre become CONTRACTED.*

13. Physical law : (L. 13.) The Law of Adhesion : *Let certain forms of matter adhere to certain other forms.*

14. Physical law : (L. 14.) The Law of Animate Generation : *On a proper union of the sexes, in the higher orders of animals and of vegetables, or on the formation of a new ganglion or nerve-centre in the lower orders, let a new being come into existence.*

The scientific principle applicable to the operation of the physical laws is this : *The power or force exhibited in the operation of a physical law is in a direct ratio with the quantity of matter influenced by the law at the time ; and the velocity of motion produced by a physical law is inversely as the resistance to this motion encountered from the operation of some other physical law or laws.*

There are fourteen forces in nature : each being derived from some one of the above-mentioned physical laws with which it may be associated. These forces are in nature sometimes found to be adjuvant, and at other times antagonistic to each other. Of the former condition an instance is presented in the enormous force exerted in the hydrostatic press, by the union of the force from the law of Gravity with that from the law of the Water-level. An instance of the latter condition is observed in firing a cannon at a ship at sea ; when the force of the law of Diffu-

action, proceeding from the diffusion of the materials of the gunpowder acting on the ball, is antagonized, and is finally overcome by the force from the Law of Cohesion acting on the air, on the water, and on the timbers of the ship through which the ball passes.

The Physical Laws, as one of the codes of the laws of nature, have not been well studied ; and consequently scientists have but a vague and very imperfect notion of their operation and bearing. He who would exert a force of any kind, must first invoke aid from this source, by bringing into operation some one or more of these laws. In using a trip-hammer, the Law of Gravity (L. 2) is first put in operation ; in the employment of steam, the force from the Law of Diffusion (L. 3) must be first put into requisition, and so on.

In the above enumeration (L. 1) serves to explain the phenomena erroneously referred to Newton's Law of Universal Gravitation—the motion of bodies of space in their orbits and on their axes resulting from this interchange of life among these bodies ; and the operation of this law explains many phenomena observed in the social relation of beings, among whom there is a constant interchange, as in commerce and in the usual intercourse among men. The operation of L. 1 and L. 5 explains the phenomena of friction, as the force from these laws antagonize and weaken or destroy the force by which a moving body is impelled. L. 5 and L. 11 serve to explain the phenomena of growth, development, or evolution, by showing how bodies are first decomposed and resolved into their original elements, and that these materials are then made use of in forming the fluids and in building

up the tissues of the living body. L. 12 explains the movements in the body by means of the muscles, by pointing out their conditions of alternate *active elongation* and *contraction* of fibres.

THE INSTINCTS.

The instincts enjoin the exercise of all the mental faculties with which beings are endowed, the indulgence of every emotion, and gratification of every passion; but every sane mind is possessed of the faculty of common-sense, that serves to restrain within proper limits these exercises, indulgences, and gratifications; and if the dictates of this monitor are disregarded and the instincts perverted, the mind is further restrained by the punishment of suffering or unhappiness.

The instincts also enjoin the performance of every bodily function of which beings are made capable. The corporeal functions proceed from the mind, which is really the sole actuary or active agent engaged; each function arising from a mental endowment or faculty. The development or improvement of the faculty of locomotion in the infant is typical of that of all the other faculties, as this improvement may here be plainly traced from the first movements of the limbs to the graceful motions in dancing, that has been called "the poetry of motion."

The mental faculties are either simple or compound. Of the simple mental faculties, we mention the memory, the imagination, the judgment, the common-sense, called also "the moral sense," "the conscience," &c., and the will; of the compound faculties, we instance the observation or conception, the reason, and the invention.

The emotions are simply the promptings of the instincts, arising from external impressions felt or imagined, as love, sympathy, parental and filial affections, &c. The passions are the emotions, exalted or intensified by an excited imagination.

Of the exercises of the simple faculties, those of the will and of the common-sense have not been properly explained. The will exerts no direct influence over the muscles, as the terms voluntary and involuntary muscles imply. The true office of the will is that of forming designs; and the designs thus formed in the mind act indirectly in urging the mind or the being to carry out or to accomplish these designs or intentions, as will presently be more fully explained.

The common-sense is that faculty of the mind by means of which it is brought into relation with the will of the Creator; and therefore it should control and regulate the exercises of all the other mental faculties—the emotions and the passions. This is the balance-wheel, as it were, of the mental machinery. Take away from it this faculty of common-sense, or pervert its exercise, and the mind forthwith runs off into the wildest vagaries of conduct as well as of science or knowledge.

A well-ordered mind is that in which this faculty is educated, cultivated, and, as far as the condition of science and religion allows, perfected. Such an order of intellect was possessed by Bishop Butler, who, in his "*Analogy of Religion, Natural and Revealed, to the Constitution and Course of Nature*," has exhibited profound thought, constantly subject to a sound and highly cultivated common-sense.

In the education of youth, the main object or principal aim should be to cultivate, to educate, and as far as is possible to improve, the common-sense. This grand result of education should never be lost sight of by parent, guardian, or teacher ; for a good sound common-sense is that which should characterize the gentleman and the lady, and will be found to be in after life the most valuable acquirement of the mind. True dignity of character is based on common-sense.

Neither have the exercises of the compound mental faculties been fully considered or fairly presented by scientists. In the exercise of the observation, or perception, the specific life of a being is determined to a material body ; when, meeting with the life constantly passing from all such bodies, an idea of this body is formed, and thus becomes spiritualized.

The proper exercise of the reason is so fully explained in the new system of American science, that it is only necessary to refer to this exposition, and to add here that in this formula the exercise of the common-sense is made the crowning act of reasoning ; and the final appeal, as to the truth or fallacy of the proposition advanced, is to this mental faculty.

The act of invention, in which means are adapted to the attainment of ends, should be preceded by reasoning, or experience regarded as imperfect reasoning, in order to arrive at the principles of science and the laws of nature, from a knowledge of which the mind is enabled with more certainty to attain its purposes or ends.

For a plain detailed account of the bodily functions, I would again refer to the new edition of American Science,

wherein these several functions are fully explained on new scientific principles, and in a way that cannot fail to meet with general approbation.

The foregoing large class of instincts that preside over the mental exercises and over the corporeal functions, being common to all living creatures, may be called *the common instincts*; but there is another class, or, if I may be allowed to use the term, a subclass of instincts, that serve to direct or govern the actions that belong more especially to each species of beings; these we propose to call *the special instincts*. The special instincts serve to instruct beings in the construction of their material bodies after a certain definite model conveyed in these instincts; they also instruct beings in procuring food, in providing their habitations or shelters, in the mode of reproduction, in providing nests or receptacles for their young, in their language and voices, or signal-calls, and in many other acts that are peculiar to the species.

From what we have now said, it is evident that the special instincts should alone be used as the basis of classification in natural history, and should be mainly relied on in determining and in establishing the limits of species.

SUGGESTIVE IMPRESSIONS.

But there is a most important part or feature of the economy of nature yet to be considered, which, strange to say, seems to have been overlooked by, or to have escaped the notice of, scientists. All around every living being, both within and without the body, are material objects, the impressions from which are appointed to suggest obe-

dience to the instincts—certain objects referring to certain instincts. Impressions thus arising it is proposed to call *the suggestive impressions*. Of these, as just intimated, some are external or from without the body, and others are internal or arising within the body. An instance of an external suggestive impression is presented in that arising from an article of food on a hungry animal; while an internal suggestive impression proceeds from the free gastric liquor in an empty stomach, or from the sensation of inanition called hunger. The designs formed in the mind by means of the will, before alluded to, may be regarded as *external suggestive impressions*, that prompt the mind to call into action *the voluntary muscles* for their accomplishment; while the impressions made within the body, by the contents of the blood vessels, &c., act as *internal suggestive impressions*, that prompt to the exercise of the *involuntary muscles*.

It should be particularly noticed here, that these suggestive impressions are not made the *causes* of acts or of actions. Whenever made, the mind is left free to attend to such impressions or not, as its common-sense may dictate; these are but the snares and temptations of the moral philosophers, that can exert no evil influence on the mind, unless the monitor just mentioned is first overborne and silenced. This subject is fully treated of in American Science, in explaining the performance of the bodily functions.

The above cursory and very imperfect reference to the true principles of science will be sufficient for our present purpose, and we proceed to examine Darwin's peculiar views embraced in his work entitled "The Descent of Man."

In this work the author starts out with the gratuitous assumption that there has been *no special creation of the species of beings*, and leaves it to be inferred, if he does not fairly maintain, that the several species had their origin in some one form, probably in the lowest form of the series of animals; and that *each species has been developed by its own exertions*, from this lowly form, on the great principle of Evolution. He attempts to strengthen this position by quoting the following passage from a contemporary naturalist of great celebrity: "Personne en Europe au moins ne ose plus soutenir la creation indépendante et de toutes pièces des espèces."* Now, as a fair offset to this assertion, let me say here: In America it is thought that, as each species of beings is constituted such by means of its special instincts or laws for the government of its actions, ordained by the Creator, no species can be changed in its nature by any other force or agency than that by which it was first formed.

We are indebted to the sagacity of a French philosopher for the truth, that no error, no fallacy, can be imposed on the human intellect that is not mixed up or closely connected with some truth that gives it currency. Now the truth that underlies Darwin's theory, and which is so nearly hidden from view that we almost doubt if Darwin himself would accept it when first plainly stated

* It is no million's a word of equivoque, that I need hardly call attention to it—that is, when a point cannot be established by fair argument, to discredit it at once by saying that every one believes it, or that many deem it unimpaired &c. It will be found, as we proceed, that this argument is frequently resorted to in support of his theory. One has been industriously impressed on the scientific mind of Europe for half a century.

to him, is this: *every living being, whether of the animal or of the vegetable kingdom, is possessed of a spiritual existence, a soul or mind.* This important truth is one of the most valuable principles of science, and deserves to be inscribed high up on the roll of scientific principles. In tracing the descent of man from a monkey, Darwin saw at a glance the importance of the point in his argument going to show that monkeys have minds. To substantiate this important position, like the giants of old, he piles Pelion on Ossa, and then heaps up the shady Olympus on the top of Pelion ; and does all this to as little purpose, for he is then no nearer the object he aims to accomplish. We freely grant his postulate that monkeys possess minds, and would aid him in establishing this position, by declaring our firm conviction, that no one who is capable of reasoning correctly can avoid this conclusion. The important truth, plainly stated above, then, has served to give it currency, and has enabled its author to palm upon the human mind this fallacious theory called Darwinism.

There are men, even of intelligence, whose minds are so beset by self-conceit that they cannot be induced to entertain the proposition that brutes possess minds ; and some are so irrational or unreasonable as to regard the assertion as an argument against the immortality of the human soul, and a future state of existence. The fallacy of such an argument is, however, pointed out by Bishop Butler, when he says, “all difficulties as to the manner how they (brutes) are to be disposed of are so apparently and wholly founded on our ignorance, that it is wonderful they should be insisted upon by any but such as are

weak enough to think they are acquainted with the whole system of things." This foolish pride or arrogance of the human mind is well sublimated in the reports of travellers, mentioned by Darwin, that certain tribes in the north of Africa knock out the front teeth or have them painted black, rather than be seen with *front white teeth like dogs!*

In order to reconcile his readers to the terms of his main proposition, Darwin declares the difference between the mind of an ape and that of man to be immense; but in pointing out this difference he seems much bothered. Brutes unquestionably show that they possess all the emotions, passions, and faculties of the human mind; but when he comes to details, he commits the grave and not unusual* error of confounding the exercises of two of the

*—How significant and irregular a way of information," says Bishop Butler, "is that of reasoning. . . . That a man should by this faculty be made acquainted with a thing in an instant, when perhaps he is thinking of something else, which he has in that time been musing upon; it may be for years." The assertion here is certainly to the left of the imagination in the process of reasoning; see the instance of reasoning in American Slaves wandering in the slavery of the lost of suicidal action.

A paragraph is going the rounds of our newspapers, to the effect that a physiologist, lecturing in a room suitably arranged—soothed, that his chief target he was taken off. He was lulled to sleep, however, "by assuming that the solution of a very troublesome matter, to which he had for years been addressing himself without success, actually disconnected with the tongue in such fact at that strange moment been flashed across his consciousness. Facts like this the lecturer would not assume to thoroughly account for." This was again plainly an instance of the exercise of the imagination in a period of reasoning then going on in the lecturer's mind, it may be unconscious, as he did not suspect the proposition that was forced or suggested by his imagination.

mental faculties that in their nature are separate and distinct from each other. All the instances of the exercise of reason by brutes that are here adduced, are plainly and manifestly but instances of the exercise of the faculty of invention, by which the mind is enabled to adapt means to the attainment of ends. It is true that in the natural course of things reasoning must precede the exercise of the invention, and consequently the exercise of the latter implies that of the former. But there are two modes of reasoning essentially differing: the one imperfect and very defective, that we designate as *experience* or abortive reasoning; and the other more perfect, that we call *scientific reasoning*. In the latter the mind goes through with a certain formula or process, which is fully explained in *American Science*, wherein four of the mental faculties are employed consecutively, namely, the observation, imagination, judgment, and common-sense. The general proposition—that is, the result of this reasoning—may then be expressed orally or in writing, and in this way can be communicated to others. In the former mode the same process is gone through with in the mind, but all unconsciously; and the final result or proposition, although serving to direct the actions of the individual in any trade, art, or profession in which he is conversant, cannot be expressed so as to be communicated.

Scientific reasoning, it must, however, be confessed, has hitherto been very imperfectly performed; and this, we think, is mainly attributable to the fact, that in the earliest period of its history the scientific mind was induced to adopt several erroneous conclusions, by which

It has since been blinded, hoodwinked, as it were, and carried away from the truth, or from the plain dictates of common sense. Some of these errors we have already referred to, page 2. The adoption of the error contained in the notion of the occult properties of matter, carried over the scientific mind of Europe to the false and hateful doctrine of materialism, or the attributing force or power to terms of matter; and from this false step it has proceeded unwarily to all the other errors complained of. With these "stumbling blocks" and this "foolishness" in its way, it is not surprising that it may with truth be said, humanity has thus far been more benefited by experience than by science; has derived greater advantages from that mode of reasoning it possesses in common with brutes, than from that which is its birthright and its high prerogative. When, however, materialism is rejected and entirely abandoned, as it is in American Science, this subject assumes a different and a much brighter aspect, and the mind falls into its natural mode of thought.

In these United States invention takes the lead of science, and we have occasionally to import a professor from Europe, that he may tell us something about science. These take occasion, as was recently done by Professor Tyndall, to twit us with the opinion of De Toqueville, that we must be content to derive our science from our ancestral home, Great Britain!

It is humiliating to our national pride to think that we must continue to be restricted to the use of that low form of reasoning that we have called experience, which we possess in common with brutes, and are prohibited by

these European instructors from aspiring to the higher form of scientific reasoning. This reproach is still more humiliating and unbearable, when it is found, as intimated above, that this whole system of European Science is utterly false, unfounded, and unreliable.

But to return from this digression, into which I have been led by the great interest I take in the subject of scientific reasoning, we may mention, as characteristics of the human species, *the special instincts*, that serve to instruct man in the formation of a body after the image of God; in forming a language by which to communicate his thoughts, and especially in the endowment by which he is made capable of scientific reasoning. Before he could show that a monkey is the progenitor of man, it was incumbent on Darwin to demonstrate clearly that a monkey is capable of transmitting to its progeny special instincts, as those just mentioned, that did not belong to his species, and functions, of the performance of which his own species were clearly incapable. This high work of creation, we contend, could only have been performed by the Creator of the universe when He first specially created the several species of beings, and endowed each species with faculties or capabilities of actions, and with instincts or laws directing these actions, peculiar to itself. This latter consideration we regard as a complete refutation of Darwin's whole argument in support of his proposition that a monkey is the progenitor of man; but we proceed to attend to some of his minor positions.

Sexual selection seems to be a favorite theme with this author, who thinks the agency in effecting the changes of species is largely attributable to this principle. In en-

tering upon this subject, it will be proper to consider the differences by which the sexes are characterized. The adult male, in most species of animals, certainly has more energy, force, or strength than the female, gelding, or young of the same species, and the differences in appearance between the sexes, &c., may, we think, be fairly traced to this superior force or strength. It is assumed in American Science that a large share of the nerve-fluid or specific life of an animal is derived from the secretions, from which this life is taken into the system by the afferent nutritory nerves or by the branches of the great sympathetic nerve. It is also claimed, as an unquestionable scientific principle, that in all animal products the nerve-fluid constitutes a part of the constituents—that is to say, the combination of the constituents is dual, and the nerve-fluid is always one of these elements.

Now the male, at the age of puberty, has a constant supply of the secretion of semen, and, in what is called the rutting season of animals, a very large supply, that furnishes life to the system from this source. It is a rational conclusion, then, that this extraordinary supply of nerve-fluid at these periods is expended in the formation of the remarkable appendages or animal products at such time, as the beard, hairy growths, antlers, beautiful plumage, &c. This extraordinary supply of nerve-fluid, and consequently of strength, (for the strength is always directly proportional to the quantity of nerve-fluid at the disposal of the individual,) at these periods, accounts for the pugnacity of males on such occasions, and also for the eagerness of the males for the females. The increased animation imparted to the whole physiognomy in this state of

things,—to some more, and to others less,—would be a ground of preference among the males by the females. The enjoyment arising from brilliant colors is a natural consequence of the exercise of the faculty of seeing, brought into action by striking suggestive impressions on the optic nerve proceeding from these colors. The same may be said of the pleasure enjoyed by females of the respective species from the impressions on the auditory nerves made by the crowing of cocks, the bellowing of bulls, the roaring of lions, or by any other sounds emitted by the males.

The principle of sexual selection, then, can only result in the females of the lower orders of animals giving the preference to the males that are possessed of most vigor; and consequently could give rise indirectly only to slight modifications or changes of form in the body, that are necessarily within the prescribed limits of the species. No other change has ever been nor can be wrought by finite agency. Again:

Much stress is laid by Darwin on the facts of Embryology, which, he alleges, are incontrovertible, and which he thinks favor his peculiar views, or the hypothesis known as Darwinism.

Let me here remark that the facts of Embryology are for the most part obtained through the microscope, and how very unreliable are the facts derived from this source they best know who are most familiar with the use of this instrument. Such are oftener the representations of a lively imagination than the results of careful observation; as they are notoriously the most successful microscopists who are possessed of a sprightly imagination.

However, the principal facts from this source, relied on by Darwin as supporting his theory, are, the *resemblances* observed between several parts of the human embryo and those of the monkey, and more especially the fact that at a certain period of growth, the former has the spinal column prolonged, so as to appear to be the commencement of a *tail*, like that of the monkey!

By an ingenious employment of the above and similar facts Darwin arrives at the monstrous proposition that every species of animal had the same origin; that is, from the one germ; and the various species were developed from this germ by individual exertion!

Now, the principles of American science plainly point out the fallacy of this proposition, in showing that every living being under instructions from a special instinct, and aided by the physical laws being into operation, builds up its own material body in the same sense and in the same way as a honey bee makes its comb, as a bird forms its nest, as a mechanic constructs a machine, or as a carpenter builds a house. Here it is seen that every species of beings must have instructions from its special instinct or law governing its actions in this work, and must call into operation the physical laws governing the changes of form of matter in forming its peculiar body, which could not be mistaken by any mind of ordinary intelligence for that of any other species.

In this view of nature the whole theory or doctrine of Evolution, Development, or Pangenesis appears imaginary and as baseless as a dream. The active part of a germ or embryo is a spiritual existence, and this may be said to form the body of the being out of the materials supplied in its environment. The acorn contains not the rudiments

of the several parts of the future oak ; but only such a supply of nutriment as may serve the spiritual germ for a time in preparing its primary organs when first set to work by the suggestive impressions from the heat, moisture, &c., of Spring. When the radicles, or roots and leaves, are formed, the being draws its supplies from the soil and from the atmosphere ; and from these supplies all the parts of the oak are produced.

From what has now been said on the subject of Darwinism, it will occur to every reflective mind that there are two distinct schools, sects, or parties in science, so diametrically opposed to each other in scientific principles, that if one is right the other is certainly wrong, or if the principles of one are true, those of the other are necessarily false. The opposing doctrines taught by these schools of science may be designated by the terms Spiritualism and Materialism ; but these terms, as here used, require new definitions.

Materialism, in the present acceptation of the term, is that scientific doctrine wherein intelligence and power or force are attributed to forms of matter. This attribute is claimed for matter on the ground of its alleged active properties, on which all natural or physical phenomena are supposed to depend. The Materialist, in his survey of nature, recognizes no God as supreme law-giver, nor the true laws of nature deriving power and authority from this source. He recognizes no finite mind, soul, or spiritual existence as that in which is the personal identity of living beings : in short, he sees nothing but matter in its several forms, actuated by its innate and inherent active properties, and giving rise, as he supposes, to all physical

or natural phenomena. He mentions, indeed, molecular forces! the universal power of gravitation! and certain potentials in nature! as heat, electricity, steam, and some other of the imponderable forms of matter; but his conceptions on the subject of the power in nature seem vague and indeterminate. He proposes, as a principal aim of science, to conquer, overcome, and subdue the powers of nature in accomplishing the purposes of the human mind. For a more detailed account of this scientific doctrine the reader is referred to the received system of science called here European Science, that is wholly founded on Materialism; and for the religious phase of Materialism he is referred to the tenets of Buddhism or to the religion of the eastern nations of Asia.

Spiritualism is emphatically the doctrine of the Bible. The idea or notion of God, as the author of nature, is not innate; but the faculty of reason is; this being part and parcel, and constituting one of the organs of manhood, as it were, of the mind. As soon as the reason is capable of being properly exercised, the mind is led unerringly to the conception of the idea of a Supreme Being. Every unsophisticated mind has its reason aroused by natural phenomena, and unavoidably arrives at this conclusion. So universally is this known to occur, that Atheists have cunningly endeavored to break the force of this fact as an argument in support of Spiritualism, by pretending that this is only the conclusion of infantile or undeveloped reasoning. This miserable resort to sophistry is, however, too plainly manifest to impose on any well-ordered mind.

It is a fundamental principle in the doctrine of Spiritualism, that *matter is absolutely inert, or utterly devoid of*

intelligence, of power or force, and of any active property whatever. With a knowledge of this scientific principle, the Spiritualist, "in casting the eye abroad upon nature," soon learns to trace natural appearances to their true proximate causes—the laws of nature, or the laws ordained by the Author of nature. In his further investigation he arrives at the following all-important generalizations:

1st. That the laws of nature may be divided into two great classes or codes—into the class of *physical laws*, for the government of the motions and changes of form of inert matter, and the class or code of *the instincts*, intended to govern the acts or actions of living beings, whose personal identity is in their minds or spiritual portions.

2d. That for executing these different codes of laws there are two essentially different provisions in nature: For operating the physical laws, physical force or the power in nature is provided—force being exhibited in nature only in or during the operation of some one or more of these physical laws: and for executing the code of the instincts, a system of rewards and punishments is provided—a due observance of any one or more of the instincts being rewarded by a sense of pleasure or of happiness, and a non-observance or neglect of the instincts being punished by a feeling of unhappiness or of suffering.

For a more detailed account of Spiritualism, the reader is referred to *American Science*, wherein it is attempted to present this subject in its scientific aspect.

and the only way to do so is to make a new
 system. The old system is too old and too
 out of date. It is not only out of date
 but it is also too expensive. It is not
 only expensive but it is also too slow.
 It is not only slow but it is also too
 complicated. It is not only complicated
 but it is also too difficult. It is not
 only difficult but it is also too dangerous.
 It is not only dangerous but it is also
 too uncertain. It is not only uncertain
 but it is also too risky. It is not only
 risky but it is also too costly. It is not
 only costly but it is also too wasteful.
 It is not only wasteful but it is also
 too inefficient. It is not only inefficient
 but it is also too unproductive. It is not
 only unproductive but it is also too
 unprofitable. It is not only unprofitable
 but it is also too unattractive. It is not
 only unattractive but it is also too
 unpopular. It is not only unpopular
 but it is also too unworkable. It is not
 only unworkable but it is also too
 unfeasible. It is not only unfeasible
 but it is also too unrealistic. It is not
 only unrealistic but it is also too
 impractical. It is not only impractical
 but it is also too impossible. It is not
 only impossible but it is also too
 unlikely. It is not only unlikely but it
 is also too improbable. It is not only
 improbable but it is also too improbable.

